

11:
16-97

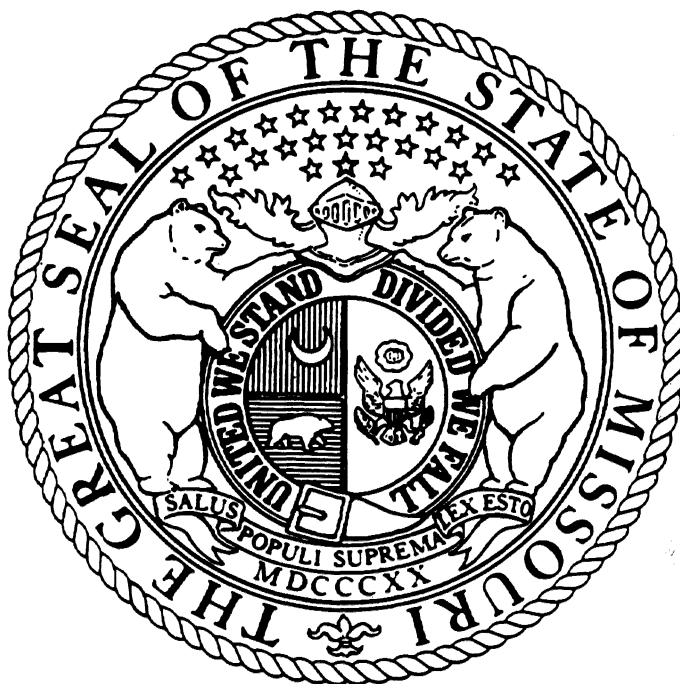
RECYCLING AND WASTE REDUCTION REPORT

STATE OF MISSOURI

FISCAL YEAR 1997

ST. LOUIS COUNTY LIBRARY
MISSOURI DEPOSITORY

MAY 12 1998



Prepared By:
State of Missouri Office of Administration
In Consultation With The
Environmental Improvement & Energy Resources Authority

Printed on 50% recycled paper with 20% post-consumer content.



Mel Carnahan
Governor

State of Missouri
OFFICE OF ADMINISTRATION

Post Office Box 809
Jefferson City
65102
(573) 751-3311

Richard A. Hanson
Commissioner

To the Members of the General Assembly
of the State of Missouri:

In accordance with RSMo 34.031, we are submitting the Fiscal Year 1997 Recycling and Waste Reduction Report. This report provides information on the State of Missouri's recycling and waste reduction programs for fiscal year 1997.

The State Office Recycling Program, administered by the Office of Administration, Division of Purchasing and Materials Management, is responsible for assisting all state agencies in the areas of waste reduction, recycling collection and procurement of recycled products. It is our intent, through educational and promotional efforts, to reduce waste at the source, recycle more effectively, and increase the purchases of recycled products.

The State Office Recycling Program's success is a result of cooperative efforts by the Office of Administration, and the many state agencies and employees that participate and support the program. This success can be witnessed in the growth of our recycling program. Purchases of recycled paper products have expanded from a little over \$2 million in 1990 to more than \$7.9 million in fiscal year 1997.

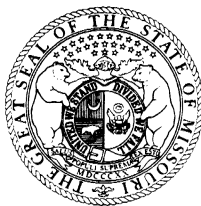
Fluctuating recycling market conditions and the higher costs of recycled products, however, have provided significant challenges to the recycling program. State agencies exceeded the 40% statutory goal for purchases of recycled paper products in fiscal year 1997, but higher prices have limited improvements in recycled product purchases the past two years.

The Office of Administration is committed to finding new opportunities to enhance the State Recycling Program. We appreciate the support of the General Assembly as we continue to improve our recycling and waste reduction programs.

Very truly yours,

A handwritten signature in black ink, reading "Richard A. Hanson".

Richard A. Hanson
Commissioner of Administration



Mel Carnahan, Governor

Stephen M. Mahfood, Director
Department of Natural Resources

P.O. Box 744, 325 Jefferson St.
Jefferson City, Missouri 65102-0744

Main Line: (573) 751-4919
Market Development: (573) 526-5555
FAX: (573) 635-3486

Thomas B. Burkemper, Chair
Avis Parman, Vice Chair/Treasurer
Diane Baker, Secretary
Charles D. Banks, Assistant Secretary
Vacant, Member

Thomas Welch, Acting Director

The Honorable Bill McKenna
President Pro Tem
Missouri Senate
State Capitol, Room 326
Jefferson City, Missouri 65101

and

The Honorable Steve Gaw
Speaker of the House
Missouri House
State Capitol, Room 308
Jefferson City, Missouri 65101

Dear Senator McKenna and Representative Gaw:

In 1994 Governor Carnahan announced the Missouri Buys Recycled Initiative and created the Missouri Interagency Recycling Committee. Since the Governor's initiative, there has been a heightened awareness in state agencies of the benefits of recycling, buying recycled products and reducing waste.

The Office of Administration reports that, in Fiscal Year 1997, revenues derived from recycling in State offices allowed an additional \$20,000 in energy assistance for low-income Missourians. State office recycling, additionally, saves the state thousands of dollars in disposal costs.

Reducing the overall volume of waste generated in state offices, though difficult to measure, is just as important. These efforts represent significant cost saving opportunities for the citizens of the state.

The key to further progress in buying recycled products, recycling and waste reduction is the State's workforce itself. The conscious and conscientious efforts of the employees of State of Missouri to achieve further progress is more than just the right thing to do. These efforts conserve the resources of the state and are a part of the "good government" we all deserve.

With best regards,

Thomas Welch
Acting Director



FY97 RECYCLING AND WASTE REDUCTION REPORT

TABLE OF CONTENTS

PAGE

Introduction	1
History	2
State Recycling Accomplishments	4
Missouri Interagency Recycling Committee (MIRC)	6
Annual State Recycling Award	7
Statewide Contract Listing for Recycled Products and Environmental Services	8
Recycled Product Procurement	9
Recycling Fund	11
Recycling Collection	13
Waste Audits	15
State Recycling Goals	16
State Department Recycling	17

If you have any questions, comments or suggestions regarding this report or the State Recycling Program, please contact the State Office Recycling Coordinator at:

**Angela Gehlert
State Office Recycling Coordinator
301 W. High, HST Bldg., Rm. 580
P.O. Box 809
Jefferson City, MO 65102**

**Telephone: (573)751-3384 or (573)751-1684
Fax: (573)526-3576
E-Mail: gehlea@mail.oa.state.mo.us
<http://www.state.mo.us/oa/purch/purch.htm>**

INTRODUCTION

Legislation involving waste reduction, procurement of recycled products and recycling collection was enacted in late 1989. Chapter 34 of the Missouri Revised Statutes, sections 34.031 and 34.032, designates specific responsibilities and defines duties and goals as it relates to these issues. The Missouri Revised Statutes may be viewed or downloaded from the Internet by accessing the State of Missouri's Revised Statutes @<http://www.moga.state.mo.us/homestat.htm>.

RSMo 34.032.5 mandates that each department and state agency develop and implement, in cooperation with the Office of Administration, a policy for recycling and waste reduction. It further states that recycling programs for agency offices located outside of the city of Jefferson should be coordinated through the Office of Administration or operated locally provided that the Office of Administration reviews and approves such programs.

The FY97 State Recycling and Waste Reduction Report prepared by the Office of Administration in consultation with the Environmental Improvement and Energy Resources Authority (EIERA) of the Department of Natural Resources summarizes state recycling, waste reduction and procurement activities for the period of July 1, 1996 through June 30, 1997.

The purpose of the report is to summarize and document the program's accomplishments in fiscal year 1997 and establish goals for fiscal year 1998. Many of the FY98 goals listed in this report have been incorporated from the Office of Administration/Division of Purchasing and Materials Management's (OA/DPM) FY98 strategic plan.

HISTORY – STATE RECYCLING PROGRAM

The success of the State Recycling Program may be attributed to efforts dating back to 1989. Significant impacts since the program's establishment in 1989 are highlighted below.

1989

Legislation involving waste reduction, the procurement of recycled products and recycling collection was enacted in late 1989, resulting in the establishment of the State Recycling Program.

Recycled product procurement was re-emphasized and given a 10% price preference.

Each executive branch department of state government was required to develop a plan for recycling and waste reduction and to begin collection of paper, aluminum cans and other recyclables.

1990

A comprehensive solid waste law was passed in 1990 to further promote waste reduction, resource recovery and market development. The law included:

- *Development of localized solid waste management plans
- *Creation of a solid waste management fund
- *Landfill bans on yard waste, lead-acid batteries, waste oil, major appliances, whole tires, and small quantities of hazardous waste.

1992

OA/DPMM designated a full time State Office Recycling Coordinator to facilitate state recycling collection, waste reduction and recycled product procurement.

The EIERA's Missouri Market Development Program was established to promote the development of markets for recovered materials.

1994

The EIERA's Missouri Buys Recycled Initiative was kicked off by Governor Carnahan to encourage businesses to purchase recycled products.

Governor Carnahan also announced the creation of the Missouri Interagency Recycling Committee (MIRC). The committee, composed of representatives from each of the state departments, meets semi-annually to discuss issues dealing with recycling collection, waste reduction, recycling market conditions and recycled product procurement.

1995

OA/DPMM, pursuant to RSMo 34.031, completed a survey of goods purchased by the State that were manufactured in whole or part from polystyrene plastic.

House Bill 562 eliminated the 10% price preference for recycled content products.

1996

The EIERA's Missouri Buys Recycled Initiative developed the first statewide Recycled Products Guide and established a toll-free hotline to provide technical assistance.

OA/DPMM re-allocated staff to supply a support person for the State Office Recycling Coordinator.

1997

The revised policy for recycling and waste reduction was completed and distributed to the executive branch departments.

STATE RECYCLING ACCOMPLISHMENTS

- The revised policy for recycling and waste reduction was distributed to MIRC members. Information was also provided to MIRC members regarding the recycling, recharging, and disposal of used laser toner cartridges and the recycling of body armor, videocassette tapes and oil filters.
- The EI ERA's Market Development Program provided financial assistance in fiscal year 1997 for the purchase of equipment totaling nearly half a million dollars for companies producing products containing recycled materials. Market Development Program efforts resulted in a total of nearly 50 thousand tons of waste diverted from landfills and over 50 new jobs, created in these companies. The program also published the first issue of the Missouri Products Guide for hundreds of Missouri Buy Recycled Initiative Members and provided the Recycled Products Guide to the state's 20 solid waste management districts. The EI ERA and its Market Development Program were recognized for their efforts with the Governor's Award for Quality and Productivity.
- Disposal of fluorescent bulbs and ballasts continues to be an issue of concern for state agencies. Representatives from the State Office Recycling Coordinator's Office, Labor & Industrial Relations, OA/Facilities Management and DNR's Hazardous Waste Unit met to further discuss the recycling/disposal of fluorescent bulbs and ballasts. The biggest deterrent continues to be costs associated with the recycling of the bulbs.
- OA/DPM established 8 new commodity service codes to help vendors register their recycled products more accurately. These products can easily be distinguished as made from recovered materials.
- The State Office Recycling Coordinator met with Department of Economic Development (DED) personnel regarding possible uses of the "product finder" database in identifying recycled products. Approximately 4,000-5,000 businesses are currently included in the database. DED is currently conducting mass mailings requesting vendors to identify products containing recycled content.
- Each department has been asked to establish and utilize detail object codes for recycled products in an effort to track departmental purchases of recycled products. Complete information is not available from the current Missouri Automated Procurement System (MAPS). Agencies were requested to establish and begin using detail object codes effective July 1, 1997, in order to report purchases of recycled products by department for FY98.
- The State Recycling Coordinator's Office distributed recycling collection guidelines to all offices/agencies in the Harry S. Truman State Office Building. Guidelines were also distributed to employees in the Broadway Building and employees of the Department of Natural Resources, Division of Environmental Quality.

- **The State Recycling Coordinator's Office began conducting recycling workshops to better educate employees and heighten awareness and participation in the State Office Recycling Program. The first presentation was given to the Department of Revenue's management team. Management staff were given an overview of the recycling program and were made aware of waste audit results (found on page 15 of this report).**
- **Promoted the State Recycling Program at DNR's Earth Day Celebration held at the Capitol. Our display provided information regarding the State's recycling and waste reduction efforts as well as examples of recycled products purchased by state agencies.**
- **Both the Department of Corrections, Fulton Reception Diagnostic Center and the Department of Mental Health, Fulton State Hospital established a recycling program.**

Fulton Diagnostic Center initiated a trial recycling program to recycle office paper, cardboard and steel cans.

Fulton State Hospital contracted for recycling services for office paper, aluminum, shredded paper, newsprint, corrugated paper, plastic and steel cans. Fulton State Hospital is working in conjunction with their sheltered workshop, Brandt Vocational Enterprises (BVE). Further information can be found on page 7 of this report.

- **Developed a baseline for waste composition and generation by conducting a series of waste audits. This baseline is essential in evaluating the effectiveness of our recycling and waste reduction efforts. Further information can be found on page 15 of this report.**

MISSOURI INTERAGENCY RECYCLING COMMITTEE (MIRC)

The Missouri Interagency Recycling Committee (MIRC), composed of representatives from each of the state departments, meets semi-annually to discuss issues dealing with recycling collection, waste reduction, recycling market conditions, and recycled product procurement.

MIRC members met in the fall to discuss several issues including the recycling and/or recharging of used laser toner cartridges, recycling market conditions and forecasts, and recycling collection methods.

Personnel from the DNR's, Hazardous Waste Unit provided information and guidelines for the disposal and recycling of fluorescent light bulbs.

Discussions at the spring meeting centered around the results of waste audits conducted at State facilities. The results of these audits can be found on page 15 of this report. The following matters were also discussed:

- Feasibility of designating a central collection point for the recycling of Nickel-Cadmium (Ni-Cd) rechargeable batteries.**
- Tire shredding by the Department of Corrections.**
- Fluorescent bulb disposal and recycling versus the State's current statewide contract for hazardous waste disposal services.**
- Developing a method in which to track recycled product procurement by department.**
- Promoting the state's recycling program and educating state employees by conducting recycling workshops, promotional events, etc.**

ANNUAL STATE RECYCLING AWARD

Each fiscal year the MIRC committee recognizes a state department, agency, facility or institution for outstanding performance in recycling collection, waste reduction and/or recycled product procurement. Recipients are acknowledged and presented an award by the Governor. Past recipients include the Department of Conservation and Office of Administration/Div. of Facilities Management/Springfield State Office Buildings.

FY97 RECIPIENT:
DEPARTMENT OF MENTAL HEALTH FULTON STATE HOSPITAL

Fulton State Hospital's sheltered workshop, Brandt Vocational Enterprises (BVE), embarked on an economical and environmental mission during FY97 to improve and expand Fulton State Hospital's recycling program.

Fulton State Hospital was paying over \$30,000 in trash hauling expenses and was one of the "largest contributors to the Fulton landfill" according to a University of Missouri study.

BVE Green Team members decided to take a closer look at the types of waste being generated by Fulton State Hospital. Waste audits revealed that 66% of the trash could have been recycled. Green Team members believed that a successful recycling program would not only reduce the trash hauling expense but would also decrease the amount of waste being sent to the landfill.

Fulton State Hospital awarded a contract for recycling services to Kingdom Projects, Inc. (KPI), a local sheltered workshop. Together BVE and KPI developed a comprehensive recycling program designed to decrease waste and increase recyclable goods. BVE clients provide the manpower for collecting, sorting, and coordinating the program at Fulton State Hospital. BVE clients, with staff supervision, are responsible for following regular pickup routes, sorting and storing the recyclables, and making deliveries to KPI.

In just three months, Fulton State Hospital recycled 14,564 lbs. of materials – over seven tons. Types of items collected for recycling include aluminum, corrugated paper (cardboard), magazines, newsprint, office paper, plastic bottles, shredded paper, and steel cans (see attached worksheet). FY98 looks even more promising as BVE Green Team members have already collected 15,000 lbs. of recyclables in just two months.

BVE Green Team members have continued to keep a watchful eye on the waste generated by the State Hospital. The Fulton State Hospital campus began this endeavor with three trash compactors and 17 dumpsters. They have been able to decrease this to 11 dumpsters with plans being made to eliminate two more.

STATEWIDE CONTRACTS

RECYCLED PRODUCTS AND ENVIRONMENTAL SERVICES

The Office of Administration, Division of Purchasing and Materials Management, has expanded previous products and services available to state agencies and Cooperative Procurement Members. These statewide contracts either utilize recovered materials within the available products or provide environmental services to state agencies. Listed below are current statewide contracts.

RECYCLED PRODUCTS

CONTRACT NUMBER

Computer Paper.....	C501024001-004
Course Paper Products.....	C700418001-002
<i>Includes bath tissues, towels, & napkins</i>	
Office and Printing Paper.....	C700671001-002
Office Supplies.....	C600870003
<i>Includes binders, file folders, envelopes and misc. office supplies</i>	
Xerographic Paper.....	C500900001

ENVIRONMENTAL SERVICES

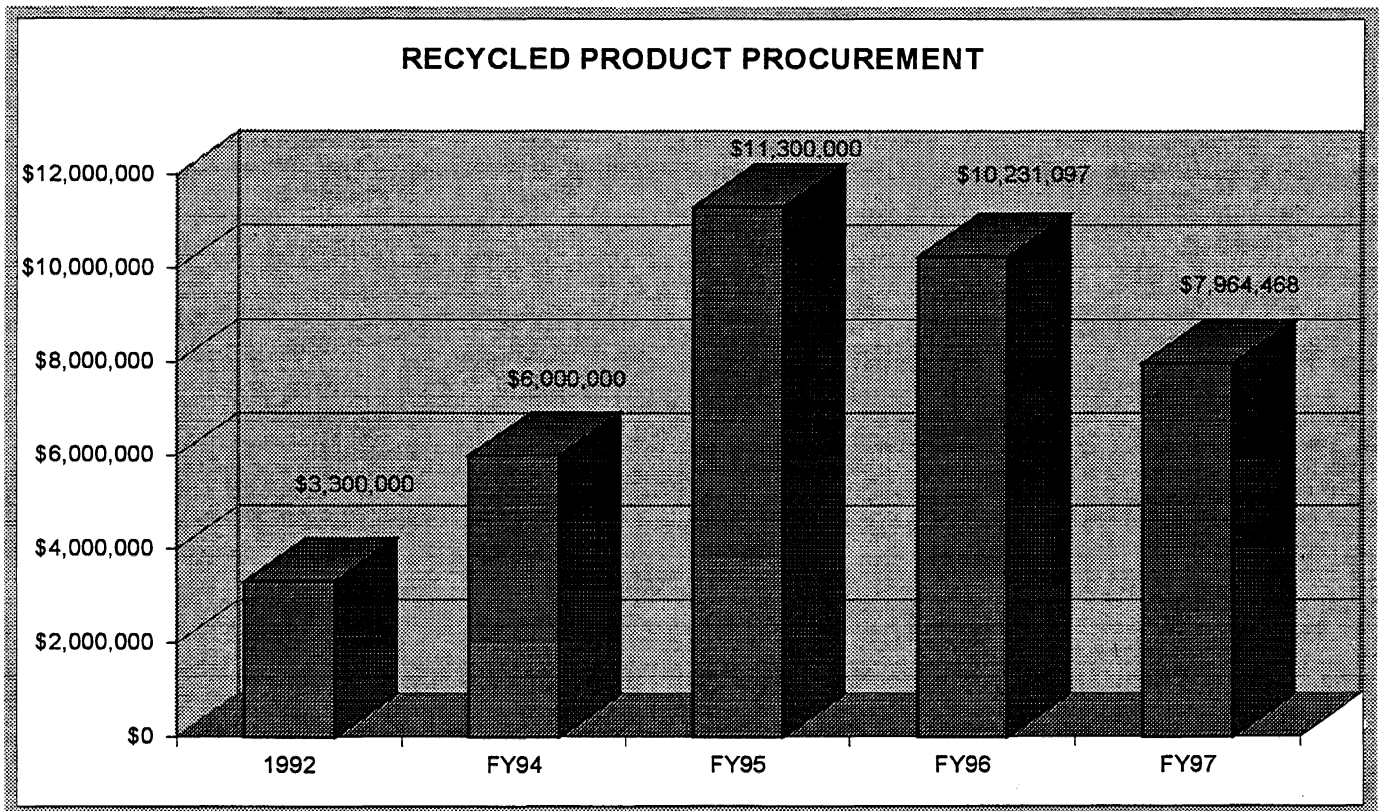
CONTRACT NUMBER

Comprehensive Hazardous Substance Management.....	C700062001-004
Environmental Assessments	C600719001
Hazardous Waste Disposal Service.....	C500803001-004
Laser Printer Cartridge Recharging.....	Not Applicable
<i>Available through Missouri Vocational Enterprises</i>	
Recycled Materials Collection Service.....	C401086001
<i>Recycled collection of various office paper in Boone, Callaway and Cole counties.</i>	
Recycling Service.....	C501901001
<i>Recycling collection of cardboard, newsprint, aluminum, steel, glass and plastics in Boone, Callaway and Cole counties.</i>	
Used Oil Pick-Up Services.....	C500694001

A complete list of all statewide contracts and/or copies of statewide contracts containing recycled products can be obtained by calling our Cooperative Procurement Office at (573)751-4169 or accessing the State of Missouri, Division of Purchasing and Materials Management's Internet home page (<http://www.state.mo.us/oa/purch/purch.htm>).

RECYCLED PRODUCT PROCUREMENT

The State of Missouri purchased \$7,964,468 of products made from recovered materials during FY97. Since the establishment of the State Recycling Program in 1990, we have significantly expanded our procurement of recycled products. Recycled product purchases have increased from \$3.3 million in 1992 to \$7.9 million in FY97. The bulk of recycled product purchases continues to be paper products.



The Office of Administration is researching the reasons for the decline of recycled product purchases since FY95. The increase in the cost of recycled paper, plus the elimination of the 10% statutory preference for recycled products in 1995 are likely factors. Also, with state agencies purchasing more products under their local procurement authority, the MAPS system is capturing less information about the state's procurement activity.

In an effort to capture more complete procurement information, each department was asked to establish and utilize detail object codes for recycled product purchases effective July 1, 1997. Use of detail object codes should provide more accurate procurement figures for departmental purchases of recycled products.

The State of Missouri continues to exceed the statutorial goals for the procurement of recycled paper products. Attainment goals as established within RSMo 34.032 for the percentage of paper products to be purchased that utilize post-consumer recovered materials are:

- (1) Ten percent in 1991 and 1992;
- (2) Twenty-five percent in 1993 and 1994;
- (3) Forty percent in 1995; and
- (4) Sixty percent by 2000.

Listed below is a breakdown of specific paper product purchases for fiscal year 1996 and 1997. This table compares the dollar amount of recycled paper products purchased to total purchases for each product type.

PURCHASE SUMMARY – PAPER PRODUCTS						
PAPER PRODUCT CATEGORY	FISCAL YEAR 1996			FISCAL YEAR 1997		
	TOTAL RECYCLED PURCHASES	TOTAL CATEGORY PURCHASES	RECYCLED %	TOTAL RECYCLED PURCHASES	TOTAL CATEGORY PURCHASES	RECYCLED %
Fine Paper Products	4,555,277	6,173,931	73.8%	4,011,381	8,538,150	47.0%
Office, Xerographic, Fax						
Office & Print Shop Use						
Course Paper Products	1,076,148	1,883,366	57.1%	1,109,916	2,114,205	52.5%
Napkins, Towels, Tissues, etc.						
Forms, Continuous & Snap Out	966,960	3,895,558	24.8%	936,987	3,137,109	29.9%
Envelopes, Plain or Printed	552,792	1,745,970	31.7%	131,255	1,201,721	10.9%
TOTAL	7,151,177	13,698,825	52.2%	6,189,539	14,991,185	41.3%

An additional \$1,774,929 was reported for FY97 recycled printing expenses. For reporting consistency, this amount was included in FY97 recycled product procurement figures on the previous page. However, this figure represents the total printing charges by commercial contractors. It does not solely reflect the amount of recycled paper purchased. This amount may include other miscellaneous costs associated with printing such as labor, design and artwork. A review of printing charges will be conducted so that the actual cost of paper included in the total printing costs can be reasonably estimated.

OA/DPMM continues to promote recycled product procurement to agency purchasing officials in an effort to increase purchases of recycled products.

RECYCLING FUND

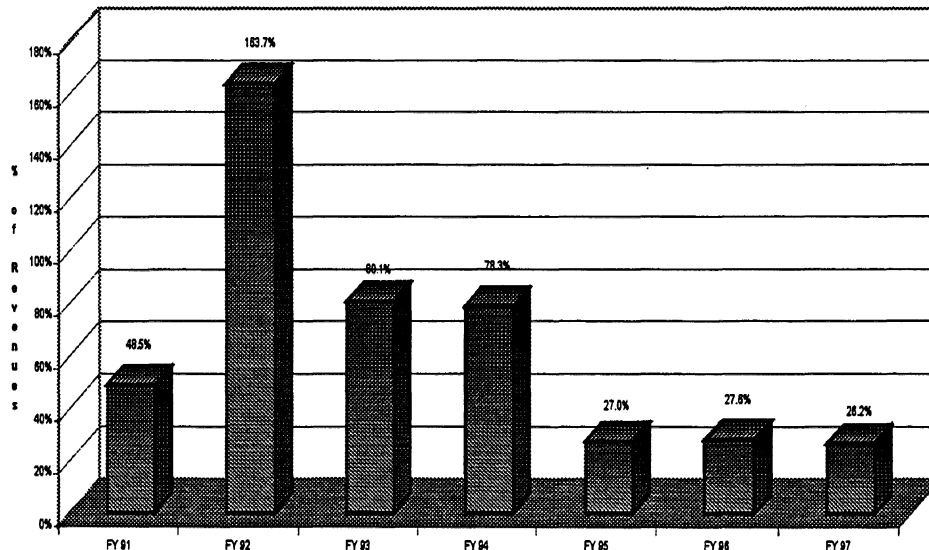
Costs of the State Recycling Program are funded by revenues generated from the recycling efforts of state employees. Revenues vary from year to year primarily due to market fluctuations. In the past five years, the reimbursement rate has varied from \$35 per ton to \$195 per ton for white office paper collected. Costs associated with the program include recycling bins, printing, promotional items, conferences and training. Excess revenues over costs are transferred to the Department of Social Services, Division of Family Services' Energy Assistance Program pursuant to RSMo 34.032. The Energy Assistance Program provides financial assistance to low-income Missourians for heating their homes during winter months. The State Recycling program transferred \$20,000 to the Energy Assistance Program for the third consecutive year.

RECYCLING FUND SUMMARY

Fiscal Year	Revenues	Program Costs	Funds Transferred
1991	\$10,262.00	\$4,974.00	
1992	\$4,920.00	\$8,053.00	
1993	\$8,110.00	\$6,493.00	
1994	\$9,074.00	\$7,104.00	
1995	\$31,148.00	\$8,397.00	\$20,000.00
1996	\$47,638.00	\$13,123.00	\$20,000.00
1997	\$24,038.00	\$6,299.00	\$20,000.00
Totals	\$135,190.00	\$54,443.00	\$60,000.00

The table below reflects the actual percentage of operational costs for the program in relation to revenues received.

Program Operation Costs





MEL CARNAHAN
GOVERNOR

MISSOURI
DEPARTMENT OF SOCIAL SERVICES
DIVISION OF FAMILY SERVICES
P.O. BOX 88
JEFFERSON CITY
65103

RELAY MISSOURI
for hearing and speech impaired
TEXT TELEPHONE
1-800-735-2966
VOICE
1-800-735-2466

September 4, 1997

Ms. Angela Gehlert, State Recycling
Coordinator
Office of Administration
Division of Purchasing
P.O. Box 809
Jefferson City, Missouri 65102

Re: Donation to Energy
Assistance Program

Dear Ms. Gehlert:

The \$20,000 transfer to DSS/DFS Energy Assistance Program from the state's recycling program is sincerely appreciated.

These funds enabled DFS to provide energy assistance benefits to approximately 110 low-income households who might not otherwise have received assistance with payment of their winter home heating costs.

Sincerely,

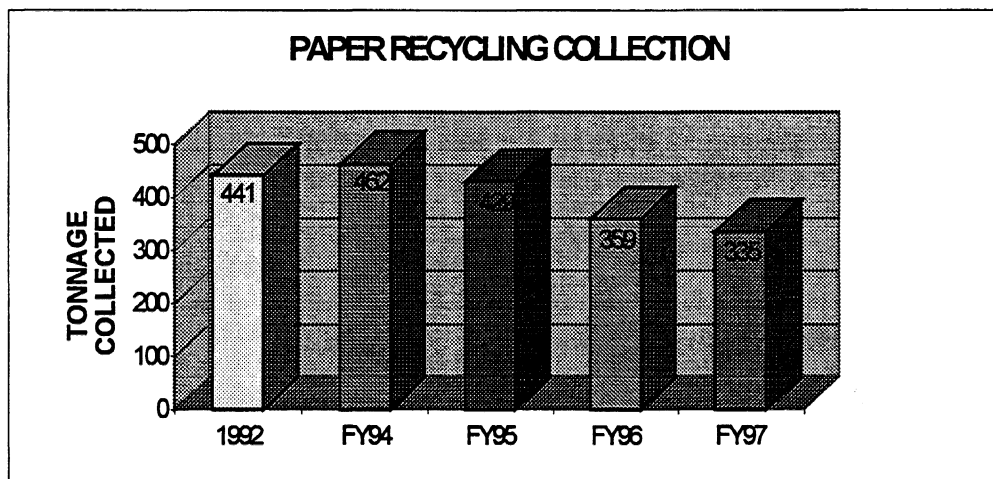
Carmen K. Schulze
Director

CKS:ss

RECYCLING COLLECTION

Two statewide contracts currently exist for recycling services in the central Missouri region (Cole, Boone and Callaway counties). These contracts cover recycling collection services for office paper, corrugated paper (cardboard), aluminum, newsprint, steel, glass and plastic.

During FY97, central Missouri state offices collected approximately 335 tons of mixed office paper. Collection information contained in this section reflects only paper collected by the state contractor for state agencies in the Jefferson City, Columbia, Fulton and Boonville areas.



The environmental and economical benefits of recycling can be measured by not only the 335 tons of paper that was recycled, generating over \$24,000 in revenues, but also by considering that 335 tons of state generated waste was diverted from the landfill. This diversion alone resulted in savings of approximately \$10,000 in landfill fees potentially incurred by state agencies.

An explanation for the reduction in recycling collection as illustrated above is not easy to determine. A number of factors can affect the decrease. Recycling less is not necessarily negative, but may in fact be a positive reflection of waste reduction efforts.

Waste reduction efforts as reported by each department are contained on pages 17-28 of this report. These efforts include duplexing copies, environmentally conscious procurement, routing correspondence versus copying numerous individuals, sharing publications and utilizing e-mail. Waste reduction efforts will certainly have an impact on recycling collection. However, these activities are difficult to track and determine to what degree they impact recycling collection.

In order to better evaluate the effectiveness of the State Recycling Program, the state's waste stream is continually monitored by conducting waste audits to determine waste composition and tracking the amount of waste generated by state facilities.

Waste Composition

Waste audits conducted in the spring of 1997 determined that despite the established recycling program, approximately 41% of state government's landfilled waste stream consisted of items collected through the state's recycling services contracts. With this baseline established, we can now develop waste reduction programs and measure the effectiveness of current waste reduction and recycling programs. Waste audit results including waste composition figures can be found on page 15 of this report

Waste Generation

In addition to conducting waste audits, the amount of waste generated by the state needs to be examined. The majority of state office buildings are billed for trash collection by a specific number of designated pickups, with no consideration for the amount (volume or weight) of the waste at the time of collection. There are two exceptions to this standard practice in Jefferson City. Both the Harry S. Truman State Office Building and the Mo. State Information Center use trash compactors, which are weighed when emptied at the landfill.

The amount of waste generated from these two facilities has been obtained from the state's contractor for trash removal services for FY97. Data for prior years is not available. The waste generated from these two buildings will be monitored to measure the effectiveness or success of recycling and waste reduction efforts.

WASTE GENERATED – FY97

FACILITY	FULL-TIME EMPLOYEES	TONS GENERATED
Harry S. Truman State Office Bldg.	2,695	437
Mo. State Information Center	233	52
TOTALS	2,928	489

Education of individual employees will be a key factor in improving recycling and waste reduction efforts. Recycling workshops are essential in educating employees as well as promoting the State recycling program.

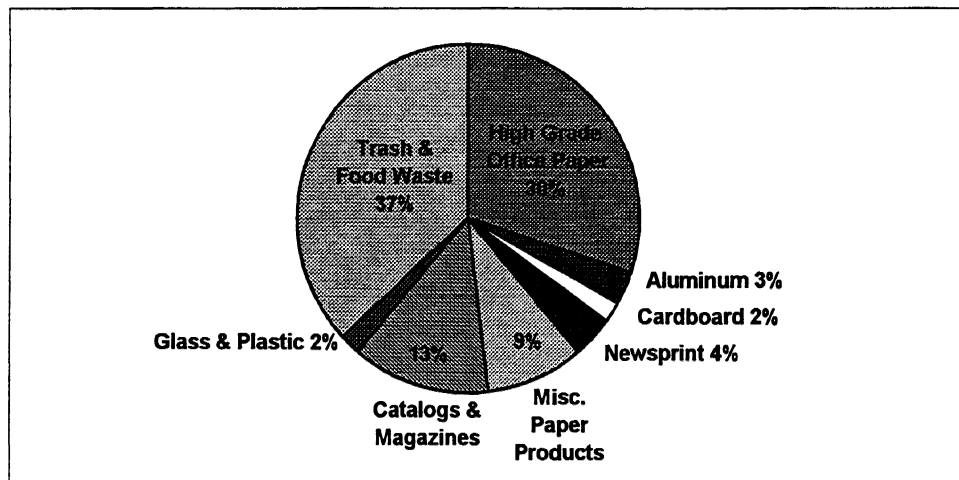
WASTE AUDITS

In the spring of 1997, the State Office Recycling Coordinator's office conducted 10 random waste audits at various state facilities in Jefferson City including the Truman State Office Building, Broadway Building and Jefferson Building. Over 578 pounds of waste headed for the landfill was examined and sorted. Through these waste audits, we were able to determine that 41% of the waste stream consisted of items covered by the State's current recycling services contracts. These items include office paper, corrugated paper (cardboard), aluminum, newsprint, steel, glass and plastic. Office paper comprised 30% of the waste sorted. The table and graph below represents data collected from the waste audits.

FY97 Waste Summary – Results by Weight		
ITEMS COVERED BY RECYCLING SERVICES CONTRACTS	OTHER ITEMS	WEIGHT BY LBS.
Office Paper		173
Newsprint		26
Aluminum		16
Glass & Plastic		14
Corrugated Paper (Cardboard)		10
	Trash & Food Waste	212
	Catalogs & Magazines	77
	Misc. Paper Products Kraft Envelopes, Post-It Notes, Manila File Folders, Labels, etc.	50
TOTAL		578

It is OA/DPM's goal to reduce the amount of recyclable material in the state's waste stream from the current 41% to 20% by improving recycling collection and waste reduction efforts.

FY97 SOLID WASTE COMPOSITION



FISCAL YEAR 1998 RECYCLING GOALS

Listed below are goals established for the State Office Recycling Program for fiscal year 1998.

1. Continue to promote recycling, waste reduction and recycled product procurement through education and training.
2. Increase recycling collection and reduce waste in state offices.
 - ◆ Continue to conduct recycling workshops to educate employees and heighten awareness and interest in the State Recycling Program.
3. Increase amount of purchases of products made from recycled materials.
 - ◆ Meet with state agencies to provide information and assistance in procuring recycled products.
 - ◆ Provide OA/DPMM buyers with a list of recycled product vendors in their commodity/service area.
4. Distribute a list of local recycling facilities to state agencies located outside of the central Missouri area or located in areas not covered by the current state recycling collection services contracts.
5. Conduct at least ten waste audits at state facilities to identify potential recyclable materials in the waste stream and monitor the effectiveness of recycling efforts.
6. Add a list of recycled products available under state contract to DPMM's Internet home page.
7. Improve tracking methods of recycled product purchases made by departments and report on these purchases annually.
8. Increase efforts to involve the Offices of Elected Officials, Judicial Branch and Legislative Branch of State Government in recycling and waste reduction activities.
9. Review printing costs to more accurately estimate the actual cost of recycled paper represented in the total printing costs as discussed on page 10.
10. Develop and maintain a master list of all state agencies and their recycling efforts. This list should contain information for agencies throughout the state as well as all state universities. Information should include a list of items collected for recycling, collection data, copies of contracts, etc.

STATE DEPARTMENT RECYCLING ACTIVITIES

Each year the state departments are asked to report their recycling activities, which include recycling collection, waste reduction and procurement of recycled products. Presented below are the responses received from the state departments regarding their recycling efforts.

OFFICE OF ADMINISTRATION

Recycling Collection

White, mixed, computer and corrugated paper, newspaper, city and state telephone directories, miscellaneous state publications, outdated computer manuals, aluminum cans, steel cans, glass, plastics, gasoline credit cards (made of aluminum), automotive batteries, oil, freon, solvents, antifreeze, paint, NiCd and NiMH batteries, wooden shipping pallets, laser toner cartridges, and styrofoam packing materials.

Waste Reduction

Recharged laser toner cartridges. Reused office supplies such as manila folders, pendaflex folders, 3 ring binders, diskettes, refillable ink pens and pencils. Routed correspondence versus copying numerous individuals. Printed and copied on both sides of the paper. Shared newspapers and publications within offices. Reused shipping pallets. Reused construction materials. Utilized internal and Internet e-mail when possible (i.e. distribution of meeting minutes, bulletins and announcements). Condensed and minimized hard copy mailing lists by encouraging state agencies and consumers to use website and e-mail. Encouraged use of ceramic coffee mugs versus styrofoam cups. Utilized routing slips and envelopes. Encouraged employees to turn off computers and all electronic equipment at night to conserve energy.

Recycled Product Procurement

Copier and printing paper, paper towels, toilet tissue, business cards, promotional items, trash bags, recharged laser toner cartridges, and re-refined oil for use in state vehicles. Surplus property program utilized when feasible. Requested recycled paper for print jobs.

Other Activities

Provided services for the pickup of recyclables. Promoted and educated state employees about the State Recycling Program. Conducted waste audits in the central Missouri region.

DEPARTMENT OF AGRICULTURE

Recycling Collection

White, mixed and computer paper, newspaper, aluminum cans, city and state telephone directories, and miscellaneous state publications.

Waste Reduction

Printed on both sides of the paper. Bound scrap paper into notepads. Utilized routing slips and envelopes. Reused binders and folders. Unused fuel samples were dispensed into state vehicles. Utilized internal and Internet e-mail when possible.

Recycled Product Procurement

Copier and printer paper, plastic and paper dinnerware.

DEPARTMENT OF CONSERVATION

Recycling Collection

White, mixed, computer and corrugated paper, newspaper, city and state telephone directories, aluminum cans, steel cans, compost materials, glass, plastics, motor oil, magazines and batteries.

Waste Reduction

Printed on both sides of the paper. Recycled laser toner cartridges. Bound scrap paper into notepads. Sent unknown/unwanted chemicals to DNR. Took metal waste to a salvage yard.

Recycled Product Procurement

Motor oil, toilet paper, hand-towels, tissues, laser toner, paper and poster materials.

Other Activities

Waste stream continually monitored by custodial staff.

DEPARTMENT OF CORRECTIONS

Recycling Collection

White, mixed and corrugated paper, newspaper, city and state telephone directories, aluminum cans, steel cans, glass, plastics, motor oil, used laser toner cartridges, oil filters, paint thinner, cleaning fluids from parts washers, shredded paper, food service grease, wooden pallets, tires, auto batteries, printer ribbons, fluorescent bulbs, and all refrigerants including R-12.

Waste Reduction

Recharged laser toner cartridges. Printed on both sides of paper when feasible. Bound scrap paper into note pads. Utilized internal and Internet e-mail. Routed correspondence rather than copying numerous individuals. Reused envelopes. Reused pallets. Used scratch paper from discarded white stock paper. Used surplus property equipment and furniture and then reissued it within the department. Pails from MVE were used as sanitary disposals. Trash bags were reused after emptying. Clothing reissued to inmate population.

Recycled Product Procurement

Laser printer cartridges, copier paper, Surplus Property, toilet paper, scratch pads, paper towels, trash bags, scrubbing pads, computer paper, large envelopes, office-supplies, paper products, pallets, file folders (hanging & manila), storage boxes, and writing tablets.

Other Activities

Paper products collected by Chillicothe Correctional Center were palletized for use as a fuel source. Tires were sent to the tire shredding operation at Central Missouri Correctional Center. Tree branches and leaves were shredded and used for mulch. Surplus Property was recirculated to other institutions. Inmate outside ground crew participates in the "adopt a highway" program, which is a cleanup and beautification of the environment.

DEPARTMENT OF ECONOMIC DEVELOPMENT

Recycling Collection

White, mixed and corrugated office paper, newspaper, aluminum cans, laser toner cartridges, city and state telephone directories, and miscellaneous state publications.

Waste Reduction

Copied and printed on both sides of the paper. Recharged laser toner cartridges. Utilized internal and Internet e-mail whenever possible. Encouraged consumers to use web site for complaint form instead of mailing. Used both sides of fax paper. Bound scratch paper for note pads. Reused storage boxes. Used ceramic coffee mugs instead of styrofoam cups. Reused manila and pendaflex folders whenever possible.

Recycled Product Procurement

Paper, laser toner cartridges, legal pads, file folders, stationary, envelopes, forms, business cards, post-it notes, paper towels, memo pads, calendars and appointment books, hanging files, desk tray holders, binders, and desk accessories.

Other Activities

Participated in a waste audit conducted at the Harry S. Truman State Office Building.

DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION

Recycling Collection

White, mixed and computer paper, newspaper, aluminum cans, city and state telephone directories, laser toner cartridges, copier toner cartridges, adding machine tape, expired publications, pamphlets and legislative bills.

Waste Reduction

Printed on both sides of the paper. Recharged both laser and copier toner cartridges. Used scrap paper as scratch pads. Phasing out fax machines requiring thermal paper. Used e-mail to cut down on paper usage. Routed documents versus copying numerous individuals. Reused folders, binders, diskettes, diskette envelopes and other reusable containers.

Recycled Product Procurement

Copier and printer paper, post-it notes, recharged toner cartridges, paper towels, file folders, manila folders, business cards, letter and legal pads, paper for print jobs, letterhead, carbonless forms, Kraft envelopes, portfolio folders, rubber bands, report and binder covers.

Other Activities

Waste products from state vehicles were recycled by the OA garage. Provided information to all employees about recycling collection in an effort to heighten awareness and participation in the State Recycling Program. Participated in a waste audit conducted at the Jefferson Building and followed up by providing DESE employees with the results. Organized an annual "Clean Up Day" in which extra recycling bins were brought in and DESE employees had an opportunity to review/clean out personal work areas, storage areas and files.

DEPARTMENT OF HEALTH

Recycling Collection

White, mixed, computer and corrugated paper, city and state telephone directories, aluminum cans and shipping pallets.

Waste Reduction

Recycled laser toner cartridges. Duplex copying and printing. Used e-mail in order to reduce paper consumption.

Recycled Product Procurement

Office paper, laser cartridges, paper towels and bathroom tissue.

Other Activities

Established recycling collection for corrugated paper (cardboard) after a waste audit revealed a significant amount of this material in the waste stream. Employees were advised of waste audit results.

DEPARTMENT OF HIGHER EDUCATION

Recycling Collection

White, mixed and computer paper, newspaper, aluminum cans, and city and state telephone directories.

Waste Reduction

Recharged laser toner cartridges. Printed on both sides of the paper. Encouraged use of non-disposable drink and food containers for office functions. Reduced the number of copies requested of department publications.

Recycled Product Procurement

Toilet tissue, paper towels, paper containers for cleaning products, copier paper, file folders, business cards, red rope pocket files, pencils, refillable pens, and recharged laser toner cartridges.

DEPARTMENT OF INSURANCE

Recycling Collection

White, mixed, computer and corrugated paper, newspaper, aluminum cans, city and state telephone directories, laser printer cartridges and reader/printer cartridges.

Waste Reduction

All laser printer cartridges were recycled/recharged as well as cartridges for the reader/printer. Employees were encouraged to duplex all copies whenever possible. Major newspapers were shared within the office. Employees were encouraged to bring their own coffee cups and plates rather than using paper or plastic.

Recycled Product Procurement

Laser printer toner cartridges, reader/printer cartridges, copier paper, paper towels, #10 envelopes, fax notes, post-it notes, letter and legal tablets, file folders and binders. Recycled paper products are procured for all paper product items, if available.

Other Activities

Employees are encouraged to turn off computers every night as well as typewriters and calculators to conserve energy.

DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS

Recycling Collection

White, mixed, computer and corrugated paper, aluminum cans, fluorescent light bulbs and ballast, and city and state telephone directories.

Waste Reduction

Recharged laser toner cartridges. Printed on both sides of the paper. Made note pads out of obsolete forms.

Recycled Product Procurement

Computer and NCR paper.

Other Activities

State vehicles were serviced by OA garage where waste products are recycled.

DEPARTMENT OF MENTAL HEALTH

Recycling Collection

White, mixed and computer paper, newspaper, aluminum cans, city and state telephone directories, steel cans, laser toner cartridges and batteries.

Waste Reduction

Recharged laser toner cartridges. Printed on both sides of the paper. Bound scrap paper into scratch pads.

Recycled Product Procurement

Writing pads and post-it notes.

DEPARTMENT OF NATURAL RESOURCES

Recycling Collection

White, mixed and corrugated paper, newspaper, aluminum cans, glass, plastics, motor oil, compost materials, batteries, laser printer cartridges, facsimile machine cartridges, tires, city and state telephone directories, statute books, blueprints, newspapers and other publications. Also recycled horticultural supplies such as floral bulbs.

Waste Reduction

Recycled/recharged used laser toner cartridges. Duplexed copies when possible. Used refillable writing instruments. Reused many office supplies as a result of the establishment of a used office supply collection area. Utilized reusable materials such as cloth towels in place of paper towels. Used e-mail versus paper memos. Recycled and reused styrofoam and cardboard. Encouraged composting and vermi-composting.

Recycled Product Procurement

Numerous office supplies including file folders, letterhead, business cards, copier paper, facsimile paper, recycled toner cartridges, recycled typewriter ribbons, mailing labels, and outdoor equipment utilizing recycled lumber and mulch. Also purchased promotional items such as pencils, frisbees, keychains, clothing, etc.

Other Activities

Promoted and showcased products utilizing recycled materials. Functioned as a clearinghouse for information about recycling and waste reduction. Provided technical and financial support for innovative methods of waste reduction and recycling. Experimented with new waste reduction activities like "carry in-carry out" at selected state park facilities. Conducted a waste audit of cafeteria facilities at major state office buildings.

DEPARTMENT OF PUBLIC SAFETY

Recycling Collection

White, mixed, corrugated paper, and computer paper, newspaper, outdated bulletins and pamphlets, aluminum cans, motor oil, batteries, tires, metals, antifreeze, statute books, toner cartridges, adding machine tape, city and state telephone directories, aluminum gas credit cards, freon, pallets, boxes, and old gas.

Waste Reduction

Utilized inter-agency envelopes in lieu of new envelopes each time. Printed and copied on both sides of the paper when feasible. Reused office supplies and janitorial supplies. Used scrap paper as note pads. Participated in a direct exchange program for automotive batteries. Solvents were re-distilled. Newspapers and publications were shared within the office. Promoted a reading file that was routed to all staff instead of copying numerous individuals. Encouraged e-mail distribution for memos, meeting minutes, bulletins and announcements in lieu of several copies being distributed to each employee.

Recycled Product Procurement

Copier and printer paper, business cards, envelopes, toilet tissue, paper towels, cardboard boxes, and office supplies such as binders, oxford wallets, file boxes, file folders, hanging folders, note pads, and legal pads.

Other Activities

Conducted a waste audit at the Missouri State Highway Patrol.

DEPARTMENT OF REVENUE

Recycling Collection

White and mixed office paper, computer and corrugated paper, newspaper, city and state telephone directories, and statute books. Motor vehicle license plates were recycled through the Department of Corrections. Income tax returns were recycled into roofing shingles.

Waste Reduction

Printed on both sides of the paper. Recycled/recharged laser toner cartridges. Utilized the Surplus Property program. Shared newspapers and publications. Reused payroll envelopes. Used loose-leaf binders to eliminate unnecessary copies. Reused wooden pallets and packing peanuts.

Recycled Product Procurement

Packing peanuts, copy machine paper, continuous computer paper, printing paper (letterhead, business cards, etc.), file folders, filing items, etc.

Other Activities

The Department's vehicles located in Jefferson City are serviced by the OA garage which recycles waste products.

DEPARTMENT OF SOCIAL SERVICES**Recycling Collection**

White, mixed, computer and corrugated paper, newspaper, aluminum cans, city and state telephone directories, and laser printer cartridges.

Waste Reduction

Recycled/recharged laser toner cartridges. Printed/copied on both sides of the paper. Bound scrap paper into note pads.

Recycled Product Procurement

Toilet tissue, paper towels, fax ribbons, copy paper and tablet paper.

Other Activities

Several divisions of the Department of Social Services centralized into one facility in Jefferson City. With this consolidation we began a recycling program at the new facility which has been most successful. Also, the Department of Social Services at the Broadway Building began collecting newspaper and aluminum cans for recycling.

DEPARTMENT OF TRANSPORTATION

Recycling Collection

White, mixed office paper, computer and corrugated paper, aluminum cans including those collected at rest areas, laser toner cartridges, steel cans, motor oil, compost materials, steel drums, automotive, NiCd and lead-acid batteries, scrap metal and waste tires found along the highways, telephone books, used motor, gear and hydraulic oil, sandblasting paints, aluminum highway road signs, solvents, antifreeze, and freon.

Waste Reduction

Scrap computer paper used for note pads. Printed and copied on both sides of the paper. Repaired and reused broken wooden and metal sign posts, damaged guardrails, damaged metal posts, and damaged bridge structural steel. Reused boxes for shipping highway signs. Old rotomillings used in mixed asphalt and roadway rehabilitation projects. Aggregate was placed under asphalt storage tank to absorb spillage, then used on roads. Used obsolete guardrail panes and concrete from roadway repair for erosion control. Waste paint solvents were used as blended industrial fuel. Stripper cleaning fluid used in striping paint. Recapped equipment, truck, and loader tires. Lead paint chips sent to lead smelter to recover the lead. Bioremediate petroleum contaminated soil instead of sending it to a landfill. District pesticide inventory maintained to better distribute and use pesticides. Steel shot and sand blast residue containing lead paint sent to lead smelter for reuse as a raw product. Parts cleaner solvent collected by recycler or blended for industrial fuel. Chipped waste wood, tree limbs and brush for landscaping and compost. Micro surfaced roadways resulting in prolonged life and reduction in material usage. Calcium sulfanate used to encapsulate lead paint on bridges.

Recycled Product Procurement

Paper, towels, toilet paper, envelopes, reclaimed rubber to use in asphalt on test project, sawdust to cover crack pouring asphalt, wet bottom boiler slag (cinders) for snow removal, fly ash in concrete, waste roofing shingle granules for snow removal, recycled paper for printing of 3.5 million highway maps, brochures and newsletters, re-refined oil in department automobiles, expanded use of recapped tires, expanded use of sawdust and mulch for roadside beautification, fly ash for fill material and pavement grouting, lime kiln dust for soil stabilization, truck tire sidewalls used for traffic cone ballast, refurbished aluminum signs, iron mountain chat by product in asphalt, used oil heaters in heat shops, wet bottom boiler slag for traction surface on bridges, and water based striping and bridge paint. Use shredded tires in landscaping. Testing recycled plastic wheel stops. Purchased equipment to extend the life of NiCd batteries. Removed the word "Virgin" from non-structural plastic product specifications.

Other Activities

Provided recycling information to over 5,600 Adopt-a-Highway groups. Included a recycling tip column in the "Roadside Review" newsletter. Maintained a department-wide hazardous materials/waste survey. Used biodegradable non-toxic degreaser on vehicles. Experimenting with Soy Wash, a biodegradable soybean by-product to clean equipment. Also experimenting with a Soy-based dust suppressant. Used compost from city recycling centers. Used low growing grass to reduce mowing and spraying (waste and pesticide reduction). Waste wood product used as absorbent material to contain spills. Conducted internal waste audits at DOT facilities. Currently working with DNR to develop a waste audit guide for garages.